BOOK REVIEW

ALFRED RUSSELL WALLACE: *Natural Selection and Tropical Nature. Essays on Descriptive and Theoretical Biology*. London and New York, Macmillan, 1891. Republished: Westmead, England, Gregg International Publications, 1969, 475 pp.

Natural Selection and *Tropical Nature* appeared originally as separate volumes of some eight or nine essays each. Why such diverse works should have been combined under one cover was undoubtedly best known to the author or his publishers, lamentably no longer available for questioning. The first edition of *Natural Selection* was dated 1870; *Tropical Nature*, 1878. Hence *we* may lump the material roughly under the centenarian label, but that does not lend it much semblance of unity either.

In his preface to the joined books, Wallace says that he felt it "advisable" to omit his essay on "The Malayan Papilionidae" as being "too technical for general readers." That, of course, is doubly a pity, since Wallace was certainly gifted in his ability to write on technical subjects in understandable popular language, but more especially because it was his study of variations in swallowtail butterflies from island to island in the Malayan Archipelago that gave him his own brilliant and independent intuition regarding the origin of species.

At the time that Wallace was writing these essays—as well as in 1891 when he was republishing them—the "big bang" of biology had already taken place, i.e., evolution had exploded and was permeating man's intellectual life in all directions. Thomas Huxley was orating loud and clear, while Wallace was doing equally serviceable battle with his pen. The most interesting feature of those essays today is that their author had to insist with such devotion on many of the points he was making. When we read the paragraphs now, we can scarcely find controversy in them, while here and there we see through puzzles that were solved after Wallace's time (genetic ones, for example). But the issues of that day were of course so thoroughly identified with heresy that it was necessary to belabor their logic in one breath and ascribe their wonder to the Creator in the next.

Indeed, Wallace attempted to sidestep such acknowledgment to the

Creator by invoking an intermediate intelligence, lying somewhere between God and man, to explain the apparently precocious evolution of the human species. A century ago it was still habitual to shrug off mysteries by crediting their existence to a higher power instead of admitting that man's knowledge had simply not yet advanced far enough to penetrate them. Wallace found that the principle of the survival of the fittest could result—just as Darwin had proposed—in every creature's being perfectly adapted to the environment it occupied. But in the case of mankind the rule seemed to break down. The skulls of contemporary savages, living as stone age brutes, were clearly as capacious as those of our best philosophers. Savage paws, needed for no finer craftsmanship than chipping the crudest of tools, were no less perfect than the finely adjusted hands of musicians and artists. Since primitive man seemed to have evolved far in advance of his needs, nature could not be held responsible for that condition, and some other force must have been at work. Wallace draws an analogy between this hypothetical director and our own lordly tampering with domesticated animals to produce, for example, poodles and pouter pigeons that equally display excessive developments of no value to their possessors (unless poodles *like* being better than other dogs at being poodles, pouters at pouting, and indeed ourselves at thinking and playing the harp).

I have not looked up the reviews of Wallace's articles—favorable or unfavorable—written by his contemporaries. However, it is easy to surmise that those literary bits were also strenuous, since one repeatedly finds Wallace trying to settle objections before they were raised, or to soothe feelings as yet uninjured. Today such rhetoric both distracts and detracts. I find the following passage particularly offensive, albeit so ludicrous as to be funny:

> Paraphrasing the eulogistic words of the poet, we may say, with perhaps a greater approximation to truth—
>
> Nature and Nature's laws lay hid in night;
> God said, "Let Darwin be," and all was light.

It is simply too bad that a naturalist as good as Wallace had to waste part of his time on such issues. Yet he suffered an additional brake to forthright reporting. In the *Tropical Nature* series, he felt it necessary to devote the first few essays to a definition of the tropics—how and why the weather in Batavia differed from that in London, and what effect those differences had on vegetable and animal life. Again,

such dissertations were necessary in 1880, and Wallace could not have written convincingly about his beetles and butterflies without first painting in the design of their tropical background. Today the essays retain their excellence as résumés of the material they cover, but they are largely redundant. We obviously know most of this stuff already, whether from having armchaired it ad nauseam in the *National Geographic* or on television, or from treading the ground in person as tourists or soldiers.

The several foregoing complaints will suffice to tell why I enjoyed this book less than some of Wallace's more uncluttered works. In his *Malay Archipelago*, for example, he takes the reader on a concentrated nature tour that must be so single-minded as to invite the opposite sort of criticism: an occasional digression would here be refreshing. But I have merely revealed my own bias toward nature. For the social historian, *Natural Selection* and *Tropical Nature* may stand as Wallace's best achievements.

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